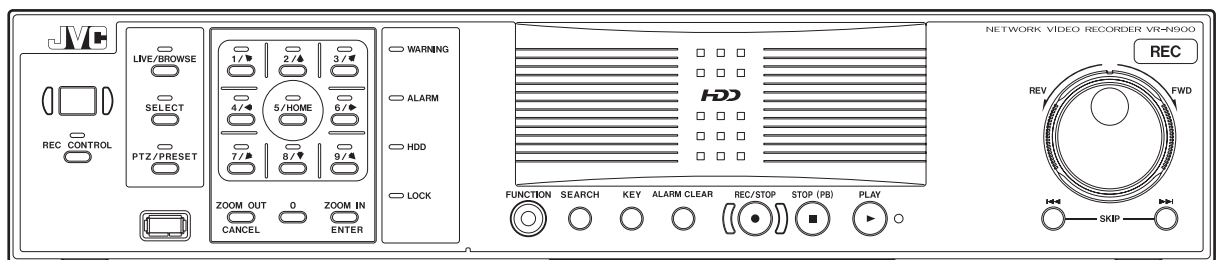




NETWORK VIDEO RECORDER

VR-N900U

STARTUP GUIDE



Powered by Milestone

Please read the following before getting started:

Thank you for purchasing this JVC product.
Before operating this unit, please read the instructions carefully to ensure the best possible performance.

For Customer Use:

Enter below the Serial No. which is located on the body.

Retain this information for future reference.

Model No. VR-N900U

Serial No. _____

Precautions for use

- The hard disk drive (HDD) contained within this Digital video recorder is a fragile, precision apparatus. Handle it with extreme care and do not subject it to physical shock.
- The HDD is most susceptible to damage when the unit is on or when the HDD is being accessed.
- Before moving the network video recorder, wait one minute after unplugging the power cord.
- Do not switch off the power on the rear panel or unplug the power cord during recording or playback, or when the hard disk drive is being accessed. It will result in damage.

IMPORTANT SAFEGUARDS

1. Read all of these instructions.
2. Save these instructions for later use.
3. All warnings on the product and in the operating instructions should be adhered to.
4. Unplug this appliance system from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.
6. Do not use this appliance near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
7. Do not place this appliance on an unstable cart, stand, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the appliance. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
8. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the appliance and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the appliance on a bed, sofa, rug, or other similar surface. This appliance should never be placed near or over a radiator or heat register. This appliance should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
9. This appliance should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company. For appliance designed to operate from battery power, refer to the operating instructions.
10. This appliance system is equipped with a 3-wire grounding type plug (a plug having a third (grounding pin). This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
12. Do not allow anything to rest on the power cord. Do not locate this appliance where the cord will be abused by persons walking on it.
13. Follow all warnings and instructions marked on the appliance.
14. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
15. Never push objects of any kind into this appliance through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the appliance.
16. Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
17. Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the appliance.
 - c. If the appliance has been exposed to rain or water.
 - d. If the appliance does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to normal operation.
 - e. If the appliance has been dropped or the cabinet has been damaged.
 - f. When the appliance exhibits a distinct change in performance - this indicates a need for service.
18. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
19. Upon completion of any service or repairs to this appliance, ask the service technician to perform routine safety checks to determine that the appliance is in safe operating condition.

PORTABLE CART WARNING
(symbol provided by RETAC)



SAFETY PRECAUTIONS (for USA)

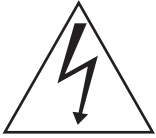


CAUTION

RISK OF ELECTRIC
SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

This unit should be used with 120 V to 240 V AC only.

CAUTION:

To prevent electric shocks and fire hazards, DO NOT use any other power source.

NOTE:

The rating plate (serial number plate) is on the rear of the unit.

INFORMATION:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION:

CHANGES OR MODIFICATIONS NOT APPROVED BY JVC
COULD VOID USER'S AUTHORITY TO OPERATE THE
EQUIPMENT.

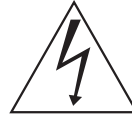
NOTE:

The rating plate (serial number plate) is on this unit.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO
CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL
INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY
INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT
MAY CAUSE UNDESIRABLE OPERATION.

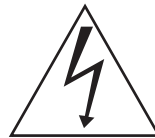


ATTENTION

RISQUE D'ELECTROCUTION
NE PAS OUVRIR



ATTENTION: POUR EVITER TOUT RISQUE D'ELECTROCUTION
NE PAS OUVRIR LE BOITER.
AUCUNE PIECE INTERIEURE N'EST
A REGLER PAR L'UTILISATEUR.
SE REFERER A UN AGENT QUALIFIE EN CAS DE PROBLEME.



Le symbole de l'éclair à l'intérieur d'un triangle équilatéral est destiné à alerter l'utilisateur sur la présence d'une "tension dangereuse" non isolée dans le boîtier du produit. Cette tension est suffisante pour provoquer l'électrocution de personnes.



Le point d'exclamation à l'intérieur d'un triangle équilatéral est destiné à alerter l'utilisateur sur la présence d'opérations d'entretien importantes au sujet desquelles des renseignements se trouvent dans le manuel d'instructions.

* Ces symboles ne sont utilisés qu'aux Etats-Unis.

AVERTISSEMENT:

POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER L'APPAREIL A L'HUMIDITE OU A LA PLUIE.

Ce magnétoscope ne doit être utilisé que sur du courant alternatif en 120 V à 240 V.

ATTENTION:

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas utiliser d'autres sources d'alimentation électrique.

REMARQUE:

La plaque d'identification (numéro de série) se trouve sur le panneau arrière de l'appareil.

CAUTION:

RED color indications on the operation panel are provided but they are not safety related, RED color indications :

- (1) For Recording Indicator
- (2) For Alarm Indicator
- (3) For Warning Indicator

SAFETY PRECAUTIONS

IMPORTANT (In the United Kingdom)

Mains Supply (AC 230 V)

WARNING - THIS APPARATUS MUST BE EARTHED

The wires in this mains lead are coloured in accordance with the following code;

GREEN-and-YELLOW : EARTH

BLUE : NEUTRAL

BROWN : LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked with the letter E or by the safety earth symbol or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or which is coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

POWER SYSTEM

Connection to the mains supply

This unit operates on voltage of 120 V to 240 V AC, 50 Hz/60 Hz.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

To prevent electric shock, do not open the cabinet. No user serviceable parts inside. Refer servicing to qualified service personnel.

Note:

The rating plate and the safety caution are on the rear and top of the unit.

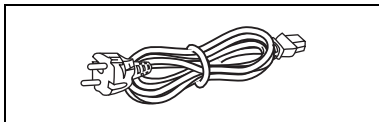
Caution for AC Power Cord

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY.

Appropriate AC Power Cord must be used in each local area.

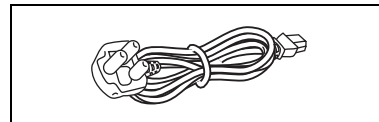
FOR CONTINENTAL EUROPE, ETC.

Not to be used in the U.K.



FOR U.K. ONLY

If the plug supplied is not suitable for your socket outlet, it should be cut off and appropriate one fitted.



WARNING

It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast, or cable programme and in any literary, dramatic, musical or artistic work embodied therein.

CAUTION

RED colour indications on the operation panel are provided but they are not safety related, RED colour indications :

- (1) For Recording Indicator
- (2) For Alarm Indicator
- (3) For Warning Indicator

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

WARNING

For PLUGGABLE EQUIPMENT, the socket outlet shall be installed near the equipment and shall be easily accessible.

Information for Users on Disposal of Old Equipment



Attention:

This symbol is only valid in the European Union.

[European Union]

This symbol indicates that the electrical and electronic equipment should not be disposed as general household waste at its end-of-life. Instead, the product should be handed over to the applicable collection point for the recycling of electrical and electronic equipment for proper treatment, recovery and recycling in accordance with your national legislation.

By disposing of this product correctly, you will help to conserve natural resources and will help prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of this product. For more information about collection point and recycling of this product, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

(Business users)

If you wish to dispose of this product, please visit our web page www.jvc-europe.com to obtain information about the take-back of the product.

[Other Countries outside the European Union]

If you wish to dispose of this product, please do so in accordance with applicable national legislation or other rules in your country for the treatment of old electrical and electronic equipment.

Dear Customer,

This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety.

European representatives of Victor Company of Japan Limited is:
JVC Technology Centre Europe GmbH
P.O. Box 10 05 52
61145 Friedberg
Germany

CAUTION

- (1) Please do not detach the front cover.
- (2) Please put it when the front cover comes off.

SICHERHEITSVORKEHRUNGEN (for Germany)

SPANNUNGSVERSORGUNG

Anschluss am Netz

Die Betriebsspannung für dieses Gerät beträgt
AC120 V bis 240 V, 50 Hz/60 Hz

ACHTUNG:

**UM DER GEFAHR VON BRÄNDEN UND
ELEKTRISCHEN SCHLÄGEN VORZUBEUGEN, DARF
DIESES GERÄT WEDER DEM REGEN NOCH HOHER
FEUCHTIGKEIT AUSGESETZT WERDEN.**

ACHTUNG

Um elektrische Schläge zu vermeiden, das Gehäuse nie
öffnen. Im Innern befinden sich keine Teile, die vom
Benutzer gewartet werden können. Überlassen Sie die
Wartung qualifiziertem Service-Personal.

WARNUNG

Bei dem Gerät handelt es sich um ein Klasse-A-Produkt.
In Haushaltsumgebungen kann ein solches Produkt
Funkstörungen verursachen. In einem solchen Fall muss
der Benutzer geeignete Maßnahmen ergreifen.

Sehr geehrter Kunde, sehr geehrte Kundin,
dieses Gerät stimmt mit den gültigen europäischen
Richtlinien und Normen bezüglich
elektromagnetischer Verträglichkeit und elektrischer
Sicherheit überein.

Die europäische Vertretung für die Victor Company of
Japan, Limited ist:
JVC Technology Centre Europe GmbH
Postfach 10 05 52
61145 Friedberg
Deutschland

Benutzerinformationen zur Entsorgung alter Geräte



[Europäische Union]

Dieses Symbol zeigt an, dass das elektrische bzw. elektronische Gerät nicht als normaler Haushaltsabfall
entsorgt werden soll. Stattdessen sollte das Produkt zur fachgerechten Entsorgung, Weiterverwendung und
Wiederverwertung in Übereinstimmung mit der Landesgesetzgebung einer entsprechenden Sammelstelle für
das Recycling elektrischer und elektronischer Geräte zugeführt werden.

Die korrekte Entsorgung dieses Produkts dient dem Umweltschutz und verhindert mögliche Schäden für die
Umwelt und die menschliche Gesundheit, welche durch unsachgemäße Behandlung des Produkts auftreten
können. Weitere Informationen zu Sammelstellen und dem Recycling dieses Produkts erhalten Sie bei Ihrer
Gemeindeverwaltung, Ihrem örtlichen Entsorgungsunternehmen oder in dem Geschäft, in dem Sie das
Produkt gekauft haben.

Für die nicht fachgerechte Entsorgung dieses Abfalls können gemäß der Landesgesetzgebung Strafen
ausgesprochen werden.

(Geschäftskunden)

Wenn Sie dieses Produkt entsorgen möchten, besuchen Sie bitte unsere Webseite www.jvc-europe.com, um
Informationen zur Rücknahme des Produkts zu erhalten.

[Andere Länder außerhalb der Europäischen Union]

Wenn Sie dieses Produkt entsorgen möchten, halten Sie sich dabei bitte an die entsprechenden
Landesgesetze und andere Regelungen in Ihrem Land zur Behandlung elektrischer und elektronischer Geräte.

Erklärung zum Rauschen (für die Bundesrepublik Deutschland):
Maschinenlärminformations-Verordnung 3. GPSGV, 06.01.2004: Der höchste
Schalldruckpegel beträgt 70 dB(A) oder weniger gemäß EN ISO 7779

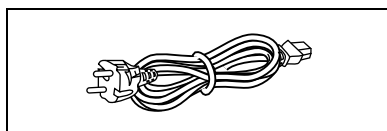
Hinweis zum Netzanschlußkabel

Zu Ihrer Sicherheit lesen Sie bitte das folgende sorgfältig.

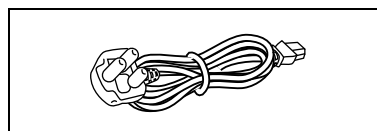
Verwenden Sie ausschließlich ein in Ihrem Land zulässiges Netzkabel.

Für Kontinentaleuropa

Nicht für den Gebrauch in Großbritannien.



Nur für Großbritannien



WICHTIGE SICHERHEITSHINWEISE

1. Alle Warnungen auf dem Produkt sowie in der Betriebsanleitung sind unbedingt zu beachten.
2. Ziehen Sie den Netzstecker dieses Systems aus der Steckdose, bevor Sie das Gerät reinigen. Benutzen Sie keine Flüssigreiniger und keine Sprühreiniger. Verwenden Sie zum Reinigen lediglich ein leicht angefeuchtetes Tuch.
3. Benutzen Sie keine Zubehörteile, die nicht vom Hersteller empfohlen werden; diese können Gefahren und Risiken verursachen.
4. Benutzen Sie das Gerät nicht in der Nähe von Wasser und sonstigen Flüssigkeiten - beispielsweise nicht in der Nähe von Badewannen, Handwaschbecken, Spülen, Waschbecken, nicht in feuchten Kellern, nicht in der Nähe von Schwimmbecken, und so weiter.
5. Stellen Sie das Gerät nicht auf instabile Wagen, Ständer oder Tische. Das Gerät kann herunterfallen, ernsthafte Verletzungen bei Kindern und Erwachsenen hervorrufen und auch selbst schwer beschädigt werden. Benutzen Sie ausschließlich Wagen oder Ständer, die vom Hersteller empfohlen oder mit dem Gerät verkauft wurden. Bei der Aufstellung im Regal halten Sie sich an die Anweisungen des Herstellers. Zusätzlich sollten Sie einen vom Hersteller zugelassenen Montagesatz verwenden. Eine Kombination aus Gerät und Wagen sollte grundsätzlich mit großer Sorgfalt bewegt werden. Schnelle Stopps, übermäßiger Krafteinsatz und unebener Untergrund können zum Umkippen der Gerät-Wagen-Kombination führen.
6. Schlitze und Öffnungen im Gehäuse sowie an Rückwand und Unterseite dienen der Belüftung des Gerätes und sorgen dafür, dass das Gerät zuverlässig arbeiten und sich nicht überhitzen kann. Daher dürfen Sie diese Öffnungen auf keinen Fall blockieren oder abdecken. Die Öffnungen können beispielsweise blockiert werden, wenn Sie das Gerät auf ein Bett, ein Sofa, einen Teppich oder einen ähnlichen Untergrund stellen. Dies darf auf keinen Fall geschehen. Das Gerät sollte niemals in der Nähe oder über Heizgeräten oder anderen Geräten, die Wärme abstrahlen, aufgestellt werden. Geschlossene Aufstellungsorte wie Bücherregale eignen sich nur dann zur Aufstellung des Gerätes, wenn eine ordnungsgemäße Belüftung jederzeit gewährleistet ist.
7. Das Gerät ist mit einem Schutzkontaktstecker (einem Stecker mit Erdungsbügeln an beiden Seiten) ausgestattet. Dieser Stecker lässt sich nur in eine geerdete Schutzkontaktsteckdose einstecken. Dies dient Ihrer Sicherheit. Falls sich der Stecker nicht problemlos in die Steckdose einstecken lassen sollte, lassen Sie die (veraltete) Steckdose von einem Elektriker austauschen. Versuchen Sie niemals, die Sicherheit, die Ihnen ein Schutzkontaktstecker bietet, auf irgendeine Weise außer Kraft zu setzen.
8. Um das Gerät während eines Gewitters oder für einen längeren unbeaufsichtigten Zeitraum zu schützen, ziehen Sie den Netzstecker aus der Steckdose, und trennen Sie die Antenne oder das Kabelsystem ab. Dadurch vermeiden Sie Produktschäden, die als Folge eines Blitzeinschlags oder Stromstosses auftreten können.
9. Sorgen Sie dafür, dass nichts auf dem Netzkabel zu liegen kommt. Platzieren Sie das Gerät nicht an Stellen, an denen Personen auf das Kabel treten und es beschädigen können.
10. Beachten Sie alle Warnungen und Anleitungen, die auf dem Gerät vermerkt sind.
11. Überlasten Sie niemals Steckdosen oder Verlängerungskabel: Dies kann leicht zu Stromschlägen und Bränden führen.
12. Stecken Sie niemals Gegenstände gleich welcher Art durch die Gehäuseöffnungen in das Gerät; dabei können Hochspannung führende Teile berührt und Kurzschlüsse verursacht werden: Es besteht akute Brand- und Stromschlaggefahr. Lassen Sie niemals Flüssigkeiten gleich welcher Art auf oder in das Gerät gelangen.
13. Unter folgenden Bedingungen ziehen Sie den Netzstecker und lassen das Gerät von einem qualifizierten Techniker überprüfen und reparieren:
 - a. Wenn das Netzkabel oder der Netzstecker beschädigt ist; auch kleinste Beschädigungen können große Auswirkungen haben.
 - b. Falls Flüssigkeit auf oder in das Gerät gelangt sein sollte.
 - c. Wenn das Gerät mit Regen oder Wasser in Berührung gekommen ist.
 - d. Wenn das Gerät nicht normal funktioniert, obwohl die Betriebsanleitung befolgt wurde. Passen Sie nur die Steuerungen an, die in der Betriebsanleitung vermerkt sind. Die Anpassung anderer Steuerungen kann ansonsten zu Schäden führen, die dann sehr aufwändig von einem qualifizierten Techniker repariert werden müssen, damit das Gerät wieder einwandfrei funktioniert.
 - e. Falls das Gerät fallen gelassen oder das Gehäuse beschädigt wurde.
 - f. Falls sich die Leistung des Gerätes spürbar ändern sollte - in diesem Fall muss das Gerät dringend überprüft und/oder repariert werden.

ACHTUNG

(1) Nehmen Sie nicht die Frontabdeckung ab.

(2) Falls sich die Frontabdeckung lösen sollte, setzen Sie sie sofort wieder auf.

Lager- und Verwendungsort:

■ Vermeiden Sie, den Recorder an folgenden Plätzen zu lagern oder zu verwenden.

Eine Missachtung kann zu einem Fehler oder einer Störung führen.

- Extrem heiße oder kalte Plätze, die außerhalb der zulässigen Betriebstemperatur liegen (5°C – 40°C)
- Feuchte oder trockene Plätze, die außerhalb der zulässigen Feuchtigkeit für den Betrieb liegen (30% – 80%)
- Plätze, an denen starke Magnetfelder erzeugt werden, beispielsweise Transformatoren oder Motoren
- Plätze in der Nähe von Geräten, die elektrische Wellen erzeugen, beispielsweise Sender-Empfänger oder Handys
- Staubige oder sandige Plätze
- Plätze, die starken Erschütterungen ausgesetzt sind
- Plätze, die zu Kondensationsbildung neigen, beispielsweise ein Fenster
- Plätze, die Strahlung, Röntgenstrahlen oder ätzende Gase erzeugen

Handhabung des Recorders:

■ Stapeln Sie Recorder nicht aufeinander. Dies kann zu erhöhter Geräuscentwicklung und aufgrund von Überhitzung zu Fehlfunktionen oder zum Totalausfall der Geräte bis hin zu Bränden führen.

■ Blockieren Sie nicht die Belüftungsschlitze. Sind die Öffnungen blockiert, bildet sich im Inneren des Recorders Hitze, wodurch ein Brand entstehen kann. Benutzen Sie den Recorder nicht in vertikaler Position, nicht auf dem Kopf stehend, nicht mit der Front nach oben.

■ Legen Sie keine Gegenstände auf dem Recorder ab. Wenn Sie einen schweren Gegenstand, beispielsweise einen Fernsehbildschirm oder einen großen Gegenstand, der über die Kante des Recorders hinausragt, auf den Recorder stellen, kann dieser aus dem Gleichgewicht geraten. Dadurch besteht die Gefahr, dass der Recorder kippt oder auf den Boden fällt und Verletzungen verursacht.

■ Steigen Sie nicht auf den Recorder. Der Recorder könnte umfallen oder beschädigt werden. Achten Sie besonders auf kleine Kinder.

■ Stellen Sie keine wasserhaltigen Gegenstände auf dem Recorder ab (beispielsweise Vase, Blumentopf, Gläser, Kosmetika oder Chemikalien). Tritt Wasser in das Innere des Recorders ein, kann dies einen Brand oder einen Kurzschluss verursachen.

■ Stecken Sie keine Fremdkörper in den Recorder. Dringen metallische oder brennbare Gegenstände durch die Belüftungsschlitze o.ä. in den Recorder ein, kann dies einen Brand oder einen Kurzschluss verursachen.

Pflege des Recorders

■ Wischen Sie den Recorder mit einem weichen Tuch ab.

Verwenden Sie keine Verdünner oder Benzol. Dies könnte dazu führen, dass die Oberfläche zersetzt oder matt wird. Im Fall von hartnäckigen Flecken, wischen Sie diese zunächst mit einem neutralen und mit Wasser verdünnten Reiniger ab, und wischen Sie die Fläche dann trocken.

Transport des Recorders

■ Trennen Sie vor dem Transport des Recorders alle Kabel ab. Schalten Sie den Recorder vor dem Transport aus und stellen Sie sicher, dass der Netzstecker aus der Steckdose entfernt wurde. Wird dies nicht beachtet, kann dies zu Beschädigungen am Kabel, einem Brand oder einem Stromschlag führen.

■ Transportieren oder starten Sie die Installation des Recorders nicht, solange er noch eingeschaltet ist oder unmittelbar nachdem er ausgeschaltet wurde (ungefähr eine Minute).

■ Achten Sie bei der Verpackung darauf, dass der Recorder vor Stößen geschützt ist.

■ Gehen Sie vorsichtig mit dem Recorder um. Setzen Sie ihn keinesfalls Erschütterungen oder Stößen aus.

Netzkabel

- Verwenden Sie das mit dem Recorder gelieferte Netzkabel ausschließlich für dieses Gerät.
- Stellen Sie keine schweren Gegenstände auf das Netzkabel und vermeiden Sie, dass das Netzkabel unter dem Recorder eingeklemmt wird. Wird dies nicht beachtet, kann dies zu Beschädigungen am Kabel, einem Brand oder einem Stromschlag führen.
- Benutzen Sie grundsätzlich das mit dem Recorder gelieferte Netzkabel. Die Verwendung eines anderen oder beschädigten Kabels kann zu Stromschlägen und Bränden führen.
- Stecken Sie das Netzkabel nicht während der Aufnahme, Wiedergabe oder während eines Zugriffs auf das Laufwerk aus.

Hinterer Gehäusedeckel: Achtung:

Sämtliche Audio-, Video- und LAN-Verbinder dürfen nicht direkt an ein Kabelverteilungssystem (Außenbereiche oder zwischen Gebäuden) angeschlossen werden.

Hintere E/A-Terminals: Hinweis: Verwenden Sie dieses Terminal nicht für eine Sicherungserdung.

Einbau des VR-N900U in einem EIA-Rack mit Montageklammern:

- 1 Montieren Sie die seitliche Klammer mit M4-Schrauben an der rechten und linken Seite. Diese Schrauben sind im Lieferumfang des VR-N900U enthalten.
- 2 Entfernen Sie 4 Schrauben und 4 Füße vom Boden des VR-N900U.
- 3 Befestigen Sie diese mit M5-Schrauben am Rack. Diese Schrauben sind im Lieferumfang des VR-N900U enthalten.

Achtung

- Stellen Sie keinerlei Gegenstände auf den VR-N900U, wenn dieser in einem Rack montiert ist. Dies kann durch Ungleichgewicht zum Herunterfallen des Recorders führen und Verletzungen oder Schäden verursachen.
- Werden zwei oder mehrere Recorder in dem Rack eingebaut, achten Sie darauf, dass der Abstand mindestens die Größe eines Recorders beträgt.
- Bauen Sie den VR-N900U nicht in ein Rack ein, wenn die Umgebungstemperatur 40°C oder mehr beträgt.
- Achten Sie beim Einbau in einem Rack darauf, dass die Innentemperatur der Rack-Einheit 40°C oder weniger beträgt.
- Wenn Sie das Gerät in einem Rack montieren, halten Sie einen Abstand von mindestens 15 cm zwischen Rack und der Rückwand des Gerätes ein.

Beachten Sie im Fall eines Einbaus oder Wartung dieses Geräts in einem Rack die speziellen Vorsichtsmaßnahmen, um sicherzustellen, dass das System nicht an Stabilität verliert.

Folgende Richtlinien dienen zur Sicherstellung Ihrer Sicherheit.

Ist dieses Gerät die einzige Einheit, die in dem Rack einzubauen ist, so sollte es auf dem Rack-Boden angebracht werden. Wird das Rack teilweise genutzt, bauen Sie die Teile von unten nach oben ein. Die schwerste Komponente sollte stets unten im Rack eingebaut werden. Ist das Rack mit stabilisierendem Zubehör ausgestattet, montieren Sie zunächst diese Stabilisatoren, bevor Sie das Gerät in das Rack einbauen oder warten.

Achtung:

Vor dem Einbau in das Rack ist sicherzustellen, dass das Rack sicher und vor dem Umfallen geschützt ist.

Technische Daten:

Allgemein:

Zulässiger Temperaturbereich bei der Lagerung: -20 °C bis 60 °C

Stromaufnahme: 1,7 A (max.)

Gewicht: etwa 7,7 kg

Main Features

- Automatic detection of IP cameras
Considerably reduces the complicated task of adding cameras to the system.
- Built-in hard disk drive with a high capacity of 250 GB
- Built-in analog input in 4 channels
- Simultaneous recording of 120 images/sec in 9 channels
- Simultaneous playback mode
Playback, jog/shuttle playback and skip play of recorded images are possible during recording.
- Direct search
Searches quickly for the desired date/time and alarm position.
- Recovery recording during power failure
Upon recovery from a power failure during recording, the VR-N900U will resume recording in the mode prior to the failure.
- Alarm recording
Switches automatically to the alarm recording mode when alarm signals are received during recording.
- Motion detection
Automatically detects motion in the specified live image and starts recording.
The detection area can be specified for each camera.
- Transmission of alarm e-mails
E-mails can be sent when an alarm is input or motion is detected.

How to Read this Manual

■ How to Read the Symbols

Caution Indicates points to note when operating the recorder.

Note Indicates useful information, such as features and restrictions on use.

 Indicates a reference page or reference item.

■ Contents of this Manual

- The contents of this manual are the copyright of JVC. They may not be reproduced in part or in whole without the permission of JVC.
- All product names stated in this manual are trademarks or registered trademarks of their respective companies. Marks such as TM, ® and © are omitted in this manual.
- Milestone and XProtect Enterprise are registered trademarks of Milestone Systems.
- Designs, specifications and other contents of this manual are subject to change without prior notice.

Contents

Getting Started

Main Features.....	2
Contents	2
PRECAUTIONS.....	3
Copyrights.....	4
Part Names and Functions	5

Preparation

Installing the VR-N900U to EIA Rack	11
System Connection Example.....	11
Initial Setup	12

Basic Operation

Viewing Live Images.....	15
Viewing Recorded Images.....	17

Others

Troubleshooting	18
Specifications.....	19

- This STARTUP GUIDE deals only with the initial setup and basic operational procedures on the VR-N900U.
Besides the STARTUP GUIDE, the VR-N900U INSTRUCTIONS is also provided on a CD-ROM that explains further details on the operation procedures. For details, please refer to the CD-ROM.

PRECAUTIONS

Place of storage and use

- Avoid storing or using the recorder in the following places.

Failure to do so may lead to malfunction or breakdown.

- Extremely hot or cold places beyond the allowable temperature for operation (5°C – 40°C)
- Humid or dry places beyond the allowable humidity range for operation (30% – 80%)
- Places that generate strong magnetic fields, e.g. transformers or motors
- Places near devices that generate electric waves, e.g. transceivers or mobile phones
- Dusty or sandy places
- Places exposed to strong vibration
- Places prone to condensation, such as by a window
- Places that generate radiation, X-rays or corrosive gases

Handling the recorder

- Do not stack recorders on top of each other.

Doing so may cause malfunction or failure due to overheating or noise, or lead to fire.

- Do not block the ventilation openings.

If the openings are blocked, heat will build up inside the recorder, leading to fire. Do not use the recorder in a vertical position or when it is placed upside down or face up.

- Do not place any objects on the recorder.

Placing a heavy object such as a TV monitor or a large object that protrudes over the edge of the recorder on top of the recorder may cause it to overbalance and topple over or fall off and cause injury.

- Do not climb on the recorder.

Doing so may cause the recorder to topple over or be damaged. Particular attention should be paid to small children.

- Do not place anything containing water on the recorder (such as a vase, plant pot, glass, cosmetics or chemicals).

If water gets inside the recorder, it may lead to fire or electric shock.

- Do not insert foreign objects into the recorder.

If any metal object or flammable item gets into the recorder through the ventilation openings, etc., it may lead to fire or electric shock.

Maintaining the recorder

- Wipe the recorder with a soft cloth.

Do not use thinner or benzene as this may cause the surface to dissolve or tarnish. For stubborn stains, wipe first with a water-diluted neutral detergent and then wipe dry.

Moving the recorder

- Disconnect the cables before moving the recorder.

Before moving the recorder, turn off the power and be sure to unplug the power cable from the electric outlet.

Failure to do so may result in damage to the cable or lead to fire or electric shock.

- Do not move the recorder or commence the installation process when the power is turned on or immediately after the power has been turned off (for approximately one minute).

The hard disk will continue to rotate due to inertia for a few moments after the power has been turned off and any vibration or physical shock during this time may result in damage.

- Wrap the recorder in protective packing to prevent physical shocks.

- Handle the recorder with care. Do not subject it to vibration or physical shocks.

Saving power

- For safety reasons and to save energy, unplug the power cable when the recorder is not in use for long periods.

Power cable

- Do not use the power cable supplied with the recorder on other devices.

- Do not place heavy items on the power cable or trap the cable under the recorder.

Doing so may result in damage to the cable or lead to fire or electric shock.

- Be sure to use the power cable supplied with the recorder.

Using a different type or damaged cable may lead to fire or electric shock.

- Do not unplug the power cable during recording or playback, or when the hard disk drive is being accessed.

Getting Started

Hard Disk Drive

The distance between the head and disk that read and write data on the hard disk drive (hereinafter known as the HDD) is a miniscule 0.02μm. Vibrations and physical shocks to the HDD may therefore result in the head coming into contact with the disk, producing dents and scratches to its surface. This will consequently prevent data from being read, and will result in disk crashes if use is continued. It is therefore necessary to handle the recorder with great care.

■ Installation and Changing the Location of Installation

- Do not move the recorder or commence the installation process when the power is turned on or immediately after the power has been switched off (for approximately one minute) under any circumstances. (The HDD will continue to rotate due to inertia for a few moments after the power has been switched off, and vibrations or physical shocks will result in damage.)
- Wrap the recorder in protecting packing to prevent physical shocks.

■ Handling

- Handle this equipment with care. Do not subject it to physical shock.
- Do not unplug the power cord during recording or playback, or when the HDD is being accessed.

■ It is recommended that an UPS (Uninterruptible Power Supply) is used when installing additional external hard disk drives to make sure the system remains stable.

■ If a power failure occurs during formatting of hard disk or disconnection, operation of the equipment may be disabled even if it is connected to the UPS.

■ Please note that we will not provide compensation for any failure during recording or playback due to defects in this equipment or the hard disk drive.

■ Please note that recorded images will be erased when replacing hard disks. Note that there are cases where recorded images may be erased when software is upgraded.

Consumable Parts

The table below is a list of the consumable parts. The parts fee that accompanies these replacement and repair costs includes technical and official trip fees that are charged even during the guarantee period.

Part name	Remarks
Hard Disk Drive (HDD)	The exchange period will expire after 10,000 hours of use (approx. one year) from the beginning date of use.
Fan Unit	The exchange period will expire after 30,000 hours of use (approx. three years) from the beginning date of use.

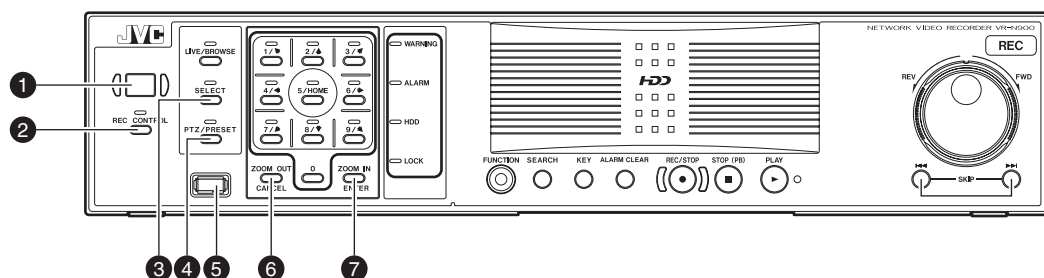
In order to support exchange and maintenance of consumable supplies, use the attached Installation date label. Enter the beginning date of use on the Installation date label and attach it to this equipment.

Copyrights

- Unless the user is the holder of the copyrights to the video and audio materials or has obtained the permission of the copyright holder, the permission of the copyright holder must be obtained to reproduce, modify or transmit copyrighted work as video or audio material. Reproducing, modifying or transmitting copyrighted work without the permission of the copyright holder is regarded as an infringement of the copyright law and may result in liability for damages. The user is therefore recommended to duly check the copyright license conditions before using copyrighted work as video or audio material. Furthermore, if the photographic rights of the subject exist, permission must be obtained to take and use (process) such photographs. The user is therefore recommended to duly check the license conditions in this regard.

Part Names and Functions

Front Panel



1 [OPERATE] button and indicator

Switches operation on or off. Press the button to turn operation on and hold down the button to turn operation off. The indicator blinks while the recorder is starting up or shutting down. To forcibly reboot the system, press and hold down the [OPERATE] button while holding down the [FUNCTION] button.

2 [REC CONTROL] button and indicator

Switches the recording control mode on or off. The indicator lights up when the recording control mode is set to on.

* The Main Menu cannot be displayed in recording control mode or during recording.

* With the recording control mode, recording is carried out in accordance with the settings in the [Camera Record Setting] menu. For details, please refer to the VR-N900U INSTRUCTIONS.

3 [SELECT] button and indicator

Switches the camera selection mode on or off. The indicator lights up when the camera selection mode is set to on.

☞ Page 15

4 [PTZ/PRESET] button and indicator

Switches between the PTZ mode and PRESET mode. The mode changes each time the button is pressed. The indicator lights up when PTZ mode is selected and blinks when PRESET mode is selected.

☞ Page 16

5 [SERIAL] port (TYPE-A)

Used to connect the communication control terminals on a mouse (sold separately), flash memories (sold separately) and UPS (sold separately).

CAUTION

- Use the [SERIAL] port on the rear panel for additional hard disk drive connection. (☞ Page 8)

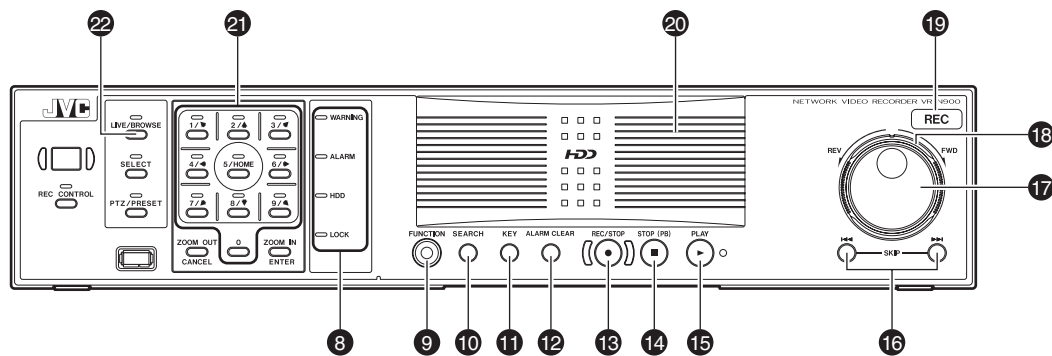
6 [ZOOM OUT/CANCEL] button

Selects ZOOM OUT when PTZ mode is selected (☞ Page 16) and selects a view in PRESET mode. Cancels the selected values in the Main Menu window. Press the [ZOOM OUT/CANCEL] button while holding down the [FUNCTION] button to change the resolution of VGA output.

7 [ZOOM IN/ENTER] button

Selects ZOOM IN when pressed in PTZ mode (☞ Page 16) and selects a view in PRESET mode. Sets the selected values in the Main Menu window. Press the [ZOOM IN/ENTER] button while holding down the [FUNCTION] button to change the resolution of VGA output.

Getting Started



8 Status indicators

■ WARNING indicator

Lights up when an error occurs. (☞ Page 18)

Goes off when the [ALARM CLEAR] button is held down.

■ ALARM indicator

Lights up when an alarm is activated.

Goes off when the [ALARM CLEAR] button is pressed.

■ HDD indicator

Lights up when the built-in hard disk drive is accessed.

■ LOCK indicator

Lights up when operation is locked.

9 [FUNCTION] button

Press the following buttons while holding down the [FUNCTION] button to use the following features.

- ① [OPERATE] (press and hold down): Forcibly reboots the system.
- ② [REC CONTROL]: Displays the Main Menu.
- ③ [LIVE/BROWSE] (press and hold down): Logs off the system.

10 [SEARCH] button

Displays the date and time search screen in playback mode.

☞ Page 17

11 [KEY] button

Press to display or close the software keyboard.

* The software keyboard is used to enter figures and characters. For details, please refer to the VR-N900U INSTRUCTIONS.

12 [ALARM CLEAR] button

Cancels the alarm when an event occurs or motion is detected.

13 [REC/STOP] button

Press to start recording in all cameras. Press and hold down to stop recording. In the recording control mode, press and hold down to cancel the recording control mode.

* Recording will not be started in cameras to which no video signal is being input.

* With the forced recording mode, recording is carried out in all cameras regardless of the settings in the [Camera Record Setting] menu. Recording is carried out in accordance with the frame rate selected in the [Image storage settings]. For details, please refer to the VR-N900U INSTRUCTIONS.

14 [STOP (PB)] button

Stops playback when pressed in playback mode.

15 [PLAY] button

Plays back at the speed and in the direction specified by the Shuttle Dial position.

16 [SKIP] button



Press to move the option highlight in the reverse direction in the menu windows or setup windows. Jumps to the beginning of the previous sequence on the selected camera when pressed in playback mode. Press and hold down to jump to the first image in the database of the selected camera.



Press to move the option highlight in the forward direction in the menu windows or setup windows. Jumps to the beginning of the next sequence on the selected camera when pressed in playback mode. Press and hold down to jump to the last image in the database of the selected camera.

- “Sequence” indicates a certain block of recorded images triggered by an event or motion.
- Recorded images are stored in the database. “Database” means the recorded data in this unit.

17 Jog dial

Plays back a single frame when rotated in playback mode.

18 Shuttle dial

The position of the dial specifies the playback speed and playback direction in playback mode. Playback speed is selectable from x 1/20, x 1/5, x 1, x 2, x 5, x 10 and x 20 according to the shuttle dial position.

19 [REC] indicator

Lights up during recording. Flashes during EMERGENCY or EXT REC IN recording.

20 Center panel

CAUTION

- Do not remove the center panel.
-

21 Keypad and camera input indicator

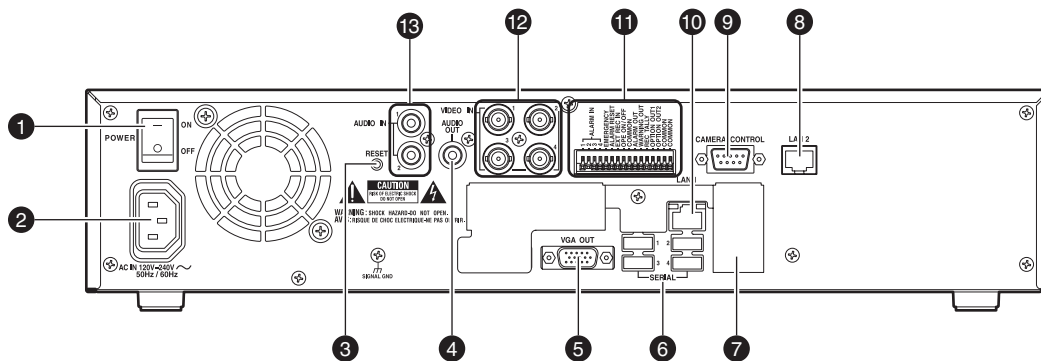
■ [0] – [9]

Selects the camera input when viewing live images and when playing back recorded images. The indicator that corresponds to the selected camera input lights up during camera selection mode. Used to move the camera to the specified position during PTZ mode, to enter the preset number during PRESET mode and to narrow down the search date, month, week and time in the search mode. When the Main Menu is displayed, press [2/▲] or [8/▼] button to move the option highlight. These buttons are also used as numeric keys.

22 [LIVE/BROWSE] button and indicator

Switches between the [Live Viewing] mode and [Recorded Image Display] mode. The indicator lights up when [Live Viewing] mode is set. Press the [LIVE/BROWSE] button in the wallpaper screen to display the [Live Viewing] window. Press and hold down the [LIVE/BROWSE] button while holding down the [FUNCTION] button to log off the system. If [Auto Logon] is set to [On], the system will automatically log on immediately after you have logged off.

Rear Panel



1 [POWER] switch

Switches the power on or off.

Note

- Be sure to press and hold down the [OPERATE] button on the front panel to shut down the system before switching off the power supply.

2 [AC IN (120-240V) ~] power input terminal

Connect to an AC120-240V outlet using the power cable supplied.

3 [RESET]

Resets the system. Press this button when a malfunction occurs.

CAUTION

- Do not press this button in normal circumstances.

4 [AUDIO OUT] terminal (RCA)

Outputs live sound in live viewing mode.

Outputs recorded sound in playback mode.

Note

- Sound will not output in the following cases:
 - When playing back still images, when running searches other than X1, and when playing back frame-by-frame.
 - When a menu or search menu is displayed during playback.

5 [VGA OUT] terminal

Outputs live images, playback images and the menu windows.

6 [SERIAL] terminal

Used to connect the communication control terminals on a mouse (sold separately), flash memories (sold separately), UPS (sold separately) and additional disk drives (sold separately).

7 Connector cover

CAUTION

- Do not remove the connector cover.

8 [LAN 2] connection interface (Intranet network)

For connection to the remote PC network using a LAN cable.

9 [CAMERA CONTROL] terminal

Lets you control the analog cameras.

10 [LAN 1] connection interface (Camera network)

For connection to the IP camera (sold separately) network using a LAN cable.

11 Signal input/output terminals

For operating the VR-N900U using external alarm signals or signals received from external devices, or for operating external devices by outputting signals.

*Diameter of applicable cables: AWG22 to AWG28

12 [VIDEO IN] camera image signal input terminals 1 to 4

Connect to the video output terminal of the analog camera (sold separately).

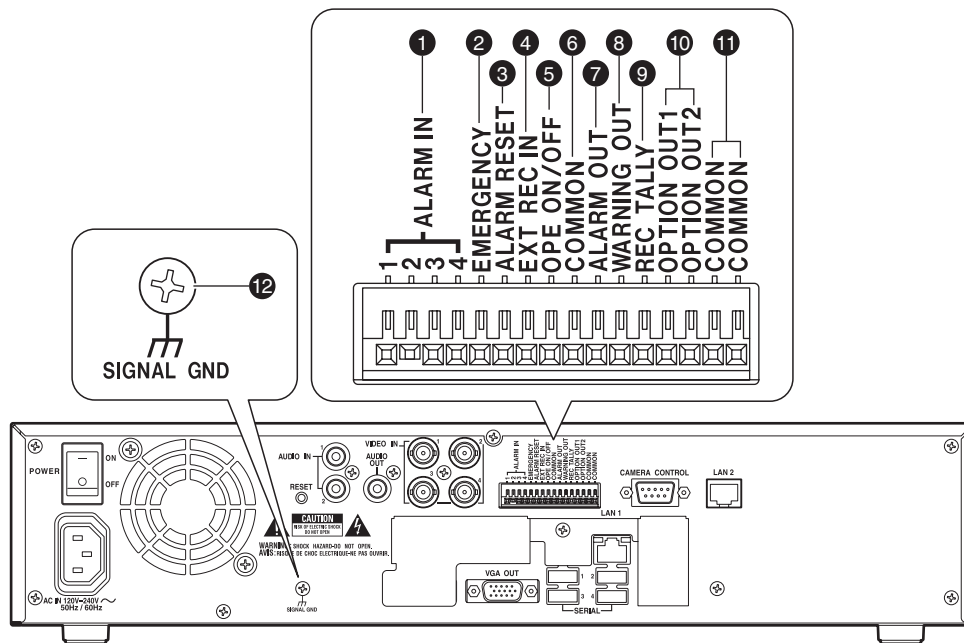
13 [AUDIO IN] terminals 1 & 2 (RCA)

Connect to the audio output terminal of the device from which audio signals are to be recorded.

CAUTION

- All Audio, Video, and LAN-connectors are not to be directly connected to Cable Distribution Systems (outdoor units or between buildings.)

Rear I/O Terminals



Input ports

1 [ALARM IN 1 to 4] terminals

Alarm recording is activated when signals are input to these terminals.

2 [EMERGENCY] terminal

Recording is activated in all cameras when a signal is input to this terminal.

* Recording will not be started in cameras to which no video signal is being input.

3 [ALARM RESET] terminal

Output from the alarm output terminal is stopped when a signal is input during alarm terminal output.

4 [EXT REC IN] terminal

Recording in all cameras is started or stopped by an external signal.

* Recording will not be started in cameras to which no video signal is being input.

5 [OPE ON/OFF] terminal

Switches between OPERATE on or off when a signal is input.

Output ports

6 [COMMON] terminal

The common grounding terminal. Connected to the signal grounding terminal on the connected device.
(This can be used when there are insufficient common grounding terminals.)

7 [ALARM OUT] terminal

Outputs a signal when recording is started by an alarm.

8 [WARNING OUT] terminal

Outputs a signal when an operation abnormality or other error occurs on the hard disk.

9 [REC TALLY] terminal

Outputs the recording status of the VR-N900U.

10 [OPTION OUT 1 & 2] terminals

Outputs a signal when an event is detected.

11 [COMMON] terminal

Same as 6.

12 [SIGNAL GND] terminal

The common grounding terminal. Connected to the signal grounding terminal on the connected device.

Note

- Do not use this terminal for protective earthing.

Getting Started

Camera Control Terminals

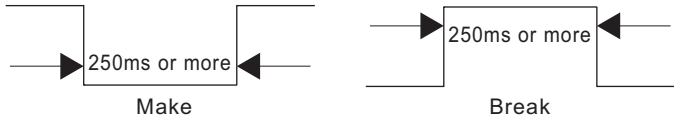
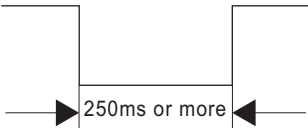
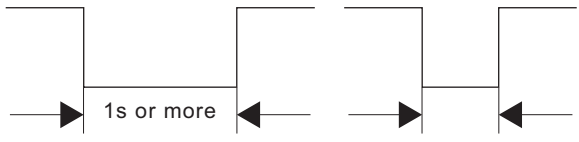
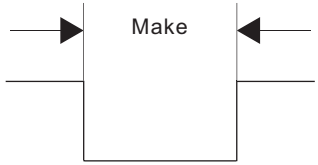
Refer to the following table for connection cables. Carefully read the instruction manual supplied with the connected device.

Camera control terminals

Signal code	Pin number
RX+	1
RX-	2
TX-	3
TX+	4
GND	5
NC	6
NC	7
NC	8
NC	9

(D-Sub 9 pin, male)

Rear I/O Terminals

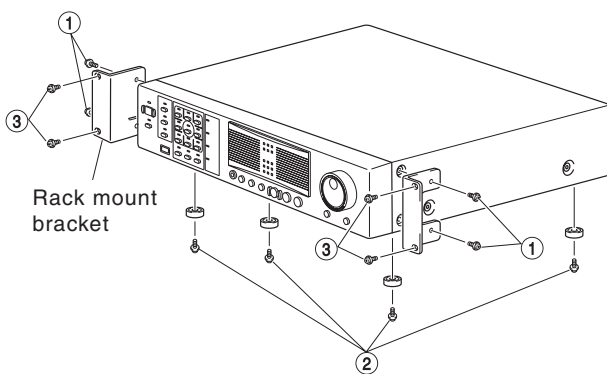
Terminal	Signal level	Remarks
[ALARM IN]	 *Set the output impedance to 10kΩ or less.	Make Contact Input
[EMERGENCY] [ALARM RESET]	 *Set the output impedance to 10kΩ or less.	Make Contact Input
[EXT REC IN]	 *Set the output impedance to 10kΩ or less.	Make Contact Input
[OPE ON/OFF]	 Switches to off when [OPERATE] is set at ON. Switches to on when [OPERATE] is set at OFF. *Set the output impedance to 10kΩ or less.	Make Contact Input
[REC TALLY] [ALARM OUT] [WARNING OUT] [OPTION OUT 1, 2]	 External pull-up level Individual output terminal and COM terminal configure a make contact. Individual output terminals become "break" when the VR-N900U is switched to OFF.	Open collector (DC15V, 10mA or less)

Preparation

Installing the VR-N900U to EIA Rack

Install the VR-N900U to EIA rack with rack mount brackets.

- 1 Mount the side bracket on both left and right using the screws ① (M4 x 10mm) which are supplied with the VR-N900U.**
- 2 Remove 4 screws ② and 4 feet from the bottom of the VR-N900U.**
- 3 Fasten to the rack using the screws ③ (M5 x 11mm) supplied with the VR-N900U.**



CAUTION

- Do not place any objects on the VR-N900U when it is mounted on the rack. Doing so may cause the recorder to overbalance and fall, causing personal injury or damage.
- If two or more recorders are mounted on the rack, be sure to leave at least one recorder space between them.
- Do not install the VR-N900U to the rack in places where ambient temperature becomes 40°C or more.
- When rack mounting, keep the internal temperature of rack assembly 40°C or less.
- When rack mount using, keep the clearance between the rack and the rear of unit 150mm or more.

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable.

The following guidelines are provided to ensure your safety: This unit should be mounted at the bottom of the rack if it is the only unit in the rack.

When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.

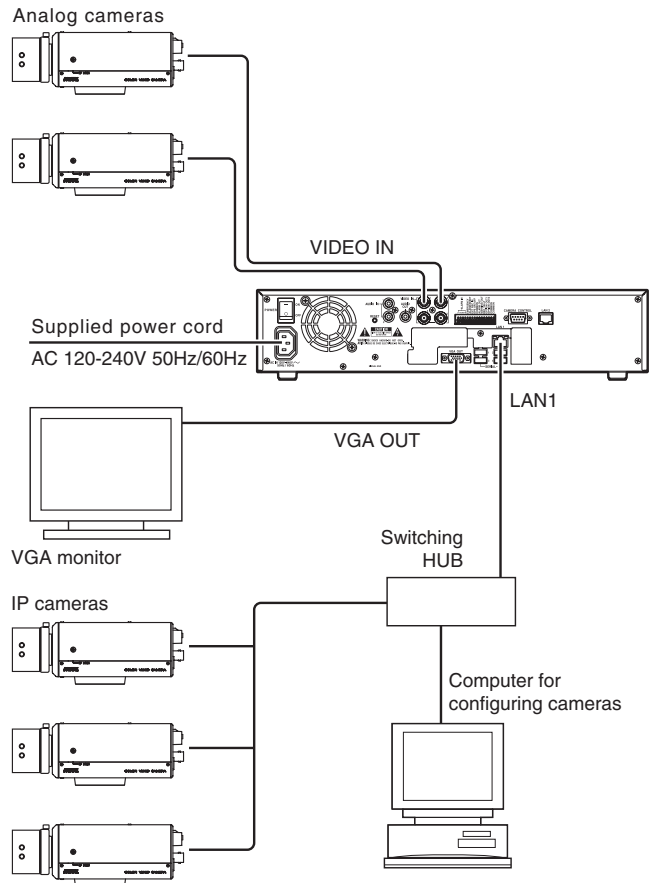
If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

CAUTION

Before you mount this device in a rack, make sure that the rack is secure and in no danger of tipping over.

System Connection Example

To ensure that the user understands basic operation of the VR-N900U, the explanations in this manual are based on a surveillance system of analog cameras and IP cameras connected to the VR-N900U and using a VGA monitor.



- You can connect up to 9 cameras (of which up to 4 can be analog cameras).

Note

- The following operations are possible with this system.
 - Surveillance (viewing/recording/playback) by connecting up to 9 cameras
 - Checking recorded images on the VGA monitor

CAUTION

- Connect the IP camera to the LAN1 network.
- Connect the IP camera after having turned off the system and connected devices.

Preparation

Initial Setup

When the VR-N900U is started up for the first time, you can select the on-screen language and set automatic camera registration.

CAUTION

- The DHCP setting is required for the IP camera beforehand. Start up the VR-N900U first, then switch the camera on after confirming that the [Auto Detect Setting] window is displayed.
- Refer to the user manual supplied with the camera for instructions on how to specify the IP camera settings.

Starting Up the VR-N900U

1 Turn the power switch on the rear panel to ON.

The VR-N900U will start up.

Selecting a Language

The [Language Setting] window will appear when the VR-N900U is started up for the first time. Follow the instructions below to select the language you want to use.



[Language Setting] window

1 Select the language you want to use.

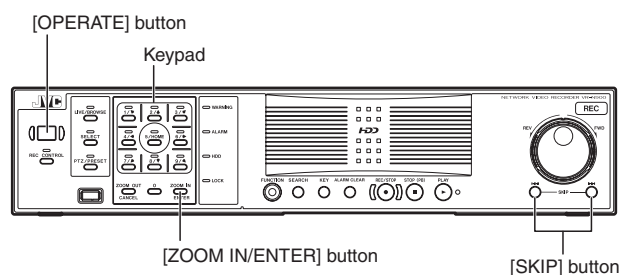
Use the [2/▲] or [8/▼] button on the keypad to select the desired language.

2 Select [OK] with the [SKIP] button, then press the [ZOOM IN/ENTER] button.

According to the settings, a message [The system is being set up.] will appear and the system will reboot.

Note

- Selected items are indicated in orange.



Automatically Registering the Cameras

When the language setting is completed after the VR-N900U has been started up for the first time, the [Auto Detect Setting] window will appear.

1 Check that [Auto Detect] is selected, then press the [ZOOM IN/ENTER] button.

A message [Please wait...] will appear.

Note

- Selected items are indicated in orange.

[Auto Detect Setting] window

Note

- In the VR-N900U, analog input circuitry is considered an IP video server and the IP address 192.168.201.12 has been set. You cannot change this IP address.



[Auto Detect Setting] window

2 Check that the camera has been detected.

- When the message disappears, the detected camera will be added to the list.
- If the camera is indicated as [Analog-In], it is an analog camera connected to the [VIDEO IN] terminal on the rear panel.
- For analog cameras, select NTSC or PAL on the screen.

3 Select [Entry] with the [SKIP] button, then press the [ZOOM IN/ENTER] button.

The automatically detected camera is registered in the system.

4 Select [OK] with the [SKIP] button, then press the [ZOOM IN/ENTER] button.

The [Detecting Device] window will appear.

[Detecting Device] window

5 Enter the password specified for the IP camera.

- Press the [KEY] button to display the software keyboard.
- Use the keypad to move the mouse cursor to the desired key on the software keyboard.
- Press the [ZOOM IN/ENTER] button to enter the letters on the keyboard in the password field.

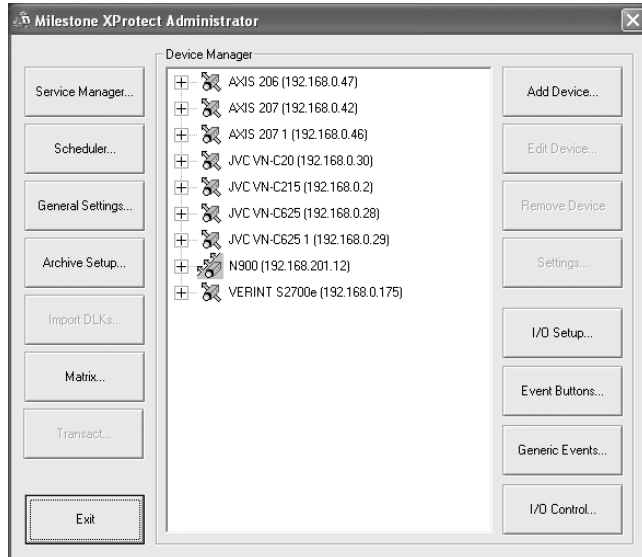
Preparation

6 After you have entered the password, press the [KEY] button again to close the software keyboard.

7 Select [OK] with the [SKIP] button, then press the [ZOOM IN/ENTER] button.

8 Repeat steps **5** to **7** for each detected camera.

The [Camera Record Setting] window will appear.



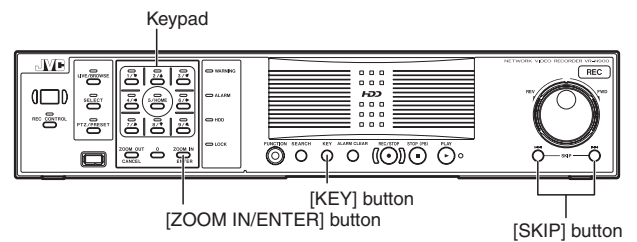
[Camera Record Setting] window

9 Select [Exit] with the [SKIP] button, then press the [ZOOM IN/ENTER] button.

Setup will be ended and the [Live Viewing] window will appear. You can see all the registered cameras in the Default View at the top of the window.



[Live Viewing] window



Basic Operation

Viewing Live Images

* For details, please refer to the VR-N900U INSTRUCTIONS.

Opening the [Live Viewing] window

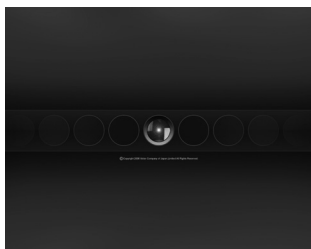
Display the [Live Viewing] window to view live images from the cameras.

1 Press [LIVE/BROWSE] button while the Wallpaper screen*1 or Main Menu*2 is displayed.

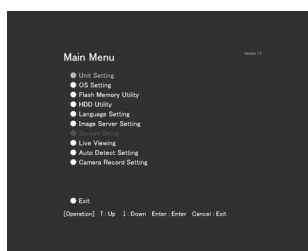
- When the [Browse] window is displayed, press the [LIVE/BROWSE] button.
- Each press of the [LIVE/BROWSE] button switches between the [Live Viewing] and [Browse] windows.



[Live Viewing] window



Wallpaper Screen*1



Main Menu*2

Selecting a Camera Image to View

- 1** Press the [SELECT] button.
- 2** Enter the camera number with the numeric keys 1 to 9.



[Live Viewing] window

When you select a particular camera, the blue bar at the top of each camera image becomes a lighter blue. Each bar features three-colored square indicators with the following functions.

- ① Event indicator (left indicator; solid yellow)**
Lights up when events specified in the [Camera Record Setting] application occur. The indicator appears black if event indication has not been specified for the camera in question, or if no specified events have occurred.
- ② Motion indicator (indicator in the middle; solid red)**
Lights up when motion is detected.
- ③ Online indicator (right indicator; blinking green)**
Blinks every time an image is received from the camera.

Note

- You can turn off the event and motion indicators by pressing the [ALARM CLEAR] button.

Basic Operation

Operating the Cameras

You can operate the PTZ (pan-tilt-zoom) cameras using the numeric keys 1 to 9, [ZOOM OUT/CANCEL] and [ZOOM IN/ENTER] buttons.

Pan/Tilt

- 1 Press the [PTZ/PRESET] button to select PTZ mode.

The mode switches between [PTZ] mode (indicator lights up) and [PRESET] mode (indicator blinks) each time the button is pressed.

- 2 Press the numeric keys 1 to 9.

The camera pans or tilts in the direction of the arrow on the selected button. Press the numeric key 5 to return to the home position.

Zoom In/Zoom Out

- 1 Press the [PTZ/PRESET] button to select PTZ mode.

The mode switches between [PTZ] mode (indicator lights up) and [PRESET] mode (indicator blinks) each time the button is pressed.

- 2 Press the [ZOOM IN/ENTER] button or the [ZOOM OUT/CANCEL] button.

Using Preset Positions

- 1 Press the [PTZ/PRESET] button to select preset mode.

The mode switches between [PTZ] mode (indicator lights up) and [PRESET] mode (indicator blinks) each time the button is pressed.

- 2 Enter the preset number with the numeric keys 1 to 9.

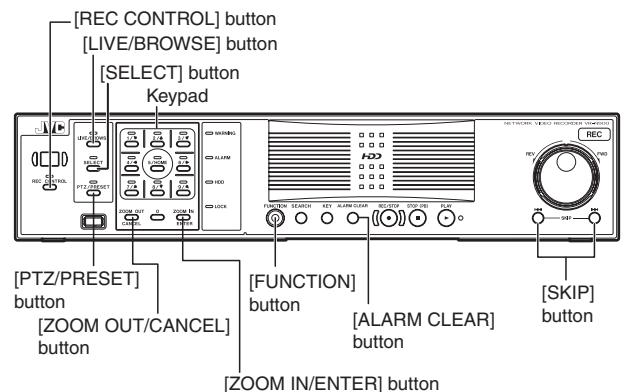
The camera will move to the preset position.

Note

- You can enter the preset number from 10 to 19 by pressing 0 first, then keys 0 to 9.

CAUTION

- To use the preset function, you must have defined the preset positions first.



Viewing Recorded Images

* For details, please refer to the VR-N900U INSTRUCTIONS.

Opening the [Browse] window

- 1 Press [LIVE/BROWSE] button while the wallpaper screen or Main Menu is displayed.
- 2 Press [LIVE/BROWSE] button again when the [Live Viewing] window is displayed.

The window switches between the [Live Viewing] window and [Browse] window each time the [LIVE/BROWSE] button is pressed.



[Browse] window

Date and Time Search

You can search for and display images by specifying a date and time when browsing and playing back recorded images.

- 1 Press the [SEARCH] button.
The date and time input window will appear.
- 2 Use the keypad to enter the recording date and time.
Select the entry field with the [SKIP] button (▶▶ or ◀◀).
- 3 Press the [ZOOM IN/ENTER] button.
Playback will start in the image display window on the right from the selected date and time.

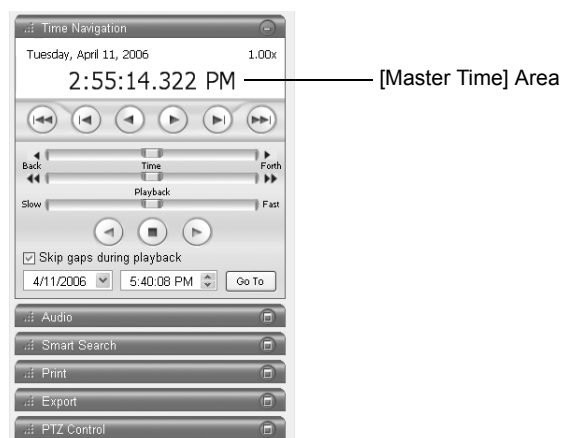
Playing Back, Skipping and Stopping Recorded Images

Use the [PLAY], [SKIP] and [STOP] buttons.

Playing Back

1 Press the [PLAY] button.

- Playback will start from the date and time displayed in the [Master Time] area of the [Time Navigation] window.
- Playback speed is selectable from x 1/20, x 1/5, x 1, x 2, x 5, x 10 and x 20 according to the shuttle dial position.



[Time Navigation] window

Skipping

1 Press the [SKIP] button.

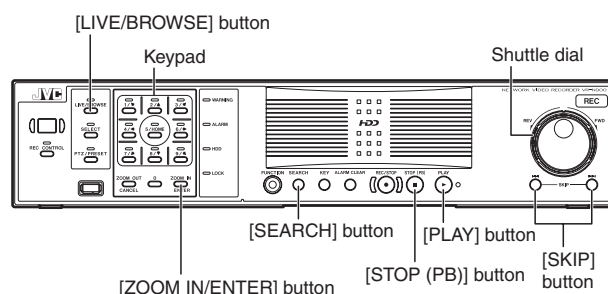
The [SKIP] buttons have the following functions.

- ◀◀: Moves to the first image in the previous sequence.
When pressed and held down, moves to the first image in the database for the selected camera.
- ▶▶: Moves to the first image in the next sequence.
When pressed and held down, moves to the last image in the database for the selected camera.

Stopping

1 Press the [STOP] button.

Playback will stop.



Troubleshooting

Problem	Solution
Power cannot be turned on.	Check that the power cable has been plugged in correctly.
	Check that the power switch on the rear panel is switched on.
Camera is not automatically detected.	Follow the instructions in the camera's user manual and check the DHCP settings.
Unable to operate the system by pressing the [REC] or [PLAY] button.	Check that operation lock is not engaged.
No images are recorded with recording control mode.	Check the settings in the [Camera Record Setting].
	Check that the scheduler is set to online.
	Check that the camera is in recording control mode.
Unable to play back sound.	Check that audio for the camera device is set to [Enable] in the [Camera Record Setting] window.

Solutions to warning indicator light up

Error message	Possible cause and solution
WARNING: HDD 0 (1)	The HDD seems to be no longer serviceable. Replacement is recommended.
	Consult to your nearest JVC dealer.
OVERHEATED!	Check the temperature of the operating environment.
	Check that the fan unit operates properly.
	If the temperature of the operating environment is appropriate, consult to your nearest JVC dealer.
ENCODER ERROR(format)	Abnormality with the input signal. Check the entered image signal.
ENCODER ERROR (xxx)	Other abnormality. Consult to your nearest JVC dealer.

Specifications

General

Allowable operating temperature range: 5°C to 40°C
Allowable storage temperature range: -20°C to 60°C
Allowable operating humidity range:.....30% to 80%
Power supply: AC 120 to 240V 50Hz/60Hz
Consumption current: 1.7A (max.)
Mass: Approx. 7.7 kg

Interface

Network: RJ-45 x 2
LAN1 1000BASE-T/100BASE-TX/10BASE-T
LAN2 100BASE-TX/10BASE-T
Serial: USB 2.0 x 5 (TYPE-A)
VGA output: Max. 1600 x 1200
Video input: NTSC/PAL composite video
75Ω (BNC unbalanced) x 4
Audio input: Analog audio RCA x 2 -8dBs
10kΩ or more unbalanced
Audio output: Analog audio RCA x1 -8dBs
600Ω or less unbalanced
Control terminal: RS-485 D-Sub 9 pin (male) ×1
In/Out terminal: Push terminal
Input x 8
Output x 5
GND x 3

Compression format

Video: JPEG/MPEG-4 (IP camera)
JPEG (analog camera)
Audio: μ-law 64 kbps
A/D 8-bit, Fs=8 kHz

Recording

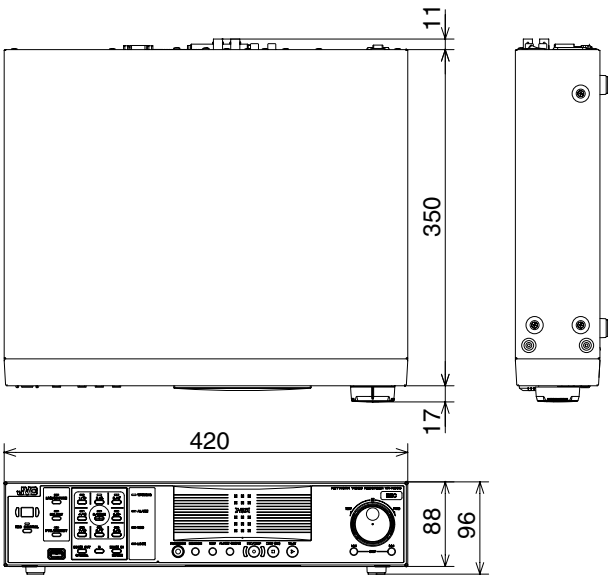
HDD capacity: 250 GB

Accessories

STARTUP GUIDE (this manual) 1
CD-ROM (INSTRUCTIONS) 1
Power cord (for U.S.: 2.44m)..... 1
Power cord (for continental Europe: 2.5m)..... 1
Power cord (for U.K. only: 2m) 1
Rack mount brackets 2
Screw (M4 x 10mm) 4
Screw (M5 x 11mm) 4

Appearance (Units: mm)

420 x 88 x 350 (W x H x D)



* Specifications and appearance of this unit are subject to change for improvement purposes without prior notice.

JVC